

**WHAT IS CLAIMED IS:**

1. A method for controlling a full automatic washing machine, the method comprising a washing cycle, a rinsing cycle, and a dewatering cycle,

wherein the washing or the rinsing cycle includes the step of rotating an inner tub at a high speed higher than a preset speed in one direction,

thereby making a centrifugal force caused by high speed rotation of the inner tub, to push laundry against a wall of the inner tub, to enforce washing water in the inner tub to penetrate through the laundry at a speed higher than required to make the washing done, and to pump the washing water penetrated through the laundry and discharged into an outer tub upward, to recirculate to the inner tub.
2. A method as claimed in claim 1, further comprising the step of rotating the inner tub at the high speed in a reverse direction after the inner tub is rotated at the high speed in the regular direction for a preset time period.
3. A method as claimed in claim 2, further including the step of either stopping the inner tub rotating at the high speed suddenly or rotating in the reverse direction, thereby making inertia of the laundry and the washing water caused by a change of rotation direction of the inner tub or a reverse direction rotation force forms a vortex which washes or rinses the laundry.

4. A method for controlling a washing machine, the washing machine comprising:  
an outer tub mounted in a washing machine body, for storage of washing water;  
an inner tub rotatably mounted in the outer tub and having a plurality of washing holes  
in a wall thereof for discharge of the washing water to the outer tub;  
a pulsator rotatably mounted as one unit with the inner tub;  
a motor directly coupled to the inner tub and the pulsator; and,  
a tub cover mounted on a top of the outer tub for guiding the washing water to the inner  
tub when the washing water is circulated from the inner tub to the inner tub again through the  
outer tub by the high speed rotation of the motor,

wherein the inner tub is rotated at a high speed over a predetermined speed in a regular  
or a reverse direction by the motor, the washing water penetrates through the laundry at a speed  
higher than a required speed by a centrifugal force generated by the high speed rotation of the  
inner tub and circulates to the inner tub again through a space between the inner tub and the  
outer tub, and the laundry is dropped by an inertia caused by a rotation direction change of the  
inner tub, whereby making a washing done.

5. A tub cover mounted on a top of an outer tub of a washing machine for preventing  
noise and foam overflow, the tub cover comprising:  
an upper surface portion of a substantially annular form on a top of the outer tub;  
a tight fit portion projected in up and down direction from an outer circumference of the  
upper surface portion for tight fit to an inside surface of the outer tub;

a fastening portion extended from the tight fit portion in a horizontal direction for being fastened to the outer tub;

a downward projection between the tight fit portion and the fastening portion; and,

a sealing member for insertion into a space between the tight fit portion and the fastening portion.

6. A tub cover as claimed in claim 5, wherein the projection is shorter than the tight fit portion, for more insertion of the sealing member beneath the projection.

7. A tub cover mounted on a top of an outer tub of a washing machine for preventing noise and foam overflow, the tub cover comprising:

an upper tub cover for being fastened to the outer tub; and,

a lower tub cover under the upper tub cover spaced therefrom for being fastened to the upper tub cover,

thereby forming washing water passages between the upper tub cover and the lower tub cover.

8. A tub cover as claimed in claim 7, wherein the upper tub cover includes;

an upper surface portion of a substantially annular form,

a tight fit portion projected in up and down direction from an outer circumference of the upper surface portion for tight fit to an inside wall of a top portion of the outer tub, and

a fastening portion extended from the tight fit portion in a horizontal direction for fastening to a top end of the outer tub; and

the lower tub cover includes;

an upper surface portion of a substantially annular form,

a vertical portion projected downwardly from an outer end of the upper surface portion,

and

height adjustment members fitted on the upper surface portion for maintaining a space between the upper tub cover and the lower tub cover.

9. A tub cover as claimed in claim 8, wherein the height adjustment member is formed to connect an inner circumference and an outer circumference of the upper surface portion of the upper tub cover.

10. A tub cover as claimed in claim 7, wherein the upper tub cover includes;

an upper surface portion of substantially annular form,

a tight fit portion projected in up and down direction from an outer circumference of the upper surface portion for tight fit to an inside wall of a top portion of the outer tub, and

a fastening portion extended from the tight fit portion in a horizontal direction for fastening to a top end of the outer tub; and,

the lower tub cover includes;

an upper surface portion of a substantially annular form, and

a vertical portion projected downwardly from an outer end of the upper surface portion, wherein there are a plurality of guide members in a space between the upper tub cover and the lower tub cover for dividing washing water flow passages at fixed intervals and guiding the washing water.

11. A tub cover as claimed in claim 10, wherein the upper surface portion of the upper tub cover and the upper surface portion of the lower tub cover have a predetermined curvature.

12. A tub cover as claimed in claim 11, wherein the vertical portion in the lower tub cover is spaced a predetermined distance from an outer diameter of a balancer on a top of the inner tub.

13. A tub cover as claimed in claim 10, wherein a fore end of the upper tub cover is formed shorter or longer than a fore end of the lower tub cover.

14. A tub cover as claimed in claim 10, wherein the guide member includes; a regular direction guide member having a predetermined curvature; and, a reverse direction guide member disposed opposite to the regular direction guide member and having a predetermined curvature.

15. A tub cover as claimed in claim 10, further including washing water draining means for permitting the washing water splashed to the upper surface portion of the upper tub cover to flow into the inner tub.

16. A tub cover as claimed in claim 15, wherein the washing water draining means is a plurality of sloped flow passage sloped downwardly in an inward radial direction formed on the upper surface portion of the upper tub cover at fixed intervals.

17. A tub cover as claimed in claim 15, wherein the washing water draining means includes;

a plurality of drain holes formed at an outer circumference of the upper surface portion of the upper tub cover at fixed intervals, and

a plurality of sloped flow passages formed on the upper surface portion of the lower tub cover at positions corresponding to the drain holes and sloped downwardly in an inward radial direction.

18. A tub cover as claimed in claim 15, wherein the washing water draining means is formed by sloping the upper surface portion of the upper tub cover downwardly in an inward radial direction.

15. A tub cover as claimed in claim 10, further including washing water draining means for permitting the washing water splashed to the upper surface portion of the upper tub cover to flow into the inner tub.

16. A tub cover as claimed in claim 15, wherein the washing water draining means is a plurality of sloped flow passage sloped downwardly in an inward radial direction formed on the upper surface portion of the upper tub cover at fixed intervals.

17. A tub cover as claimed in claim 15, wherein the washing water draining means includes;

a plurality of drain holes formed at an outer circumference of the upper surface portion of the upper tub cover at fixed intervals, and

a plurality of sloped flow passages formed on the upper surface portion of the lower tub cover at positions corresponding to the drain holes and sloped downwardly in an inward radial direction.

18. A tub cover as claimed in claim 15, wherein the washing water draining means is formed by sloping the upper surface portion of the upper tub cover downwardly in an inward radial direction.

19. A method for controlling a washing machine, comprising:

- (1) a laundry moving step for rotating an inner tub formed as a unit with a pulsator at a high speed over a required speed in one direction for moving laundry against a wall of the inner tub;
- (2) a washing water penetrating step for carrying out washing or rinsing as the washing water penetrates through the laundry by the high speed rotation of the inner tub;
- (3) a washing water pumping step for discharging the washing water passed through the laundry to an outer tub through washing holes formed in the inner tub, and, therefrom, moving the washing water upward;
- (4) a circulating step for circulating the pumped washing water to an inside of the inner tub by using the tub cover; and,
- (5) repeating the steps (1) ~ (4) by rotating the motor at a high speed in a reverse direction.

20. A method as claimed in claim 19, further comprising the steps of conducting an agitating washing, and an agitating rinsing by rotating the inner tub at a speed lower than a preset speed.